



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,972	01/05/2004	Hiroshi Okada	Q78713	1870
23373	7590	11/03/2004		EXAMINER
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				BELLAMY, TAMIKO D
			ART UNIT	PAPER NUMBER
				2856

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,972	OKADA ET AL.	
	Examiner	Art Unit	
	Tamiko D. Bellamy	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 January 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 05 January 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 1/5/04.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fekete (4,987,400).

Re to claims 1 and 8, Fekete discloses in figs. 3 and 9 a float. As depicted in fig. 9, Fekete discloses a sensor part (130) that is screwed into a tank and therefore is in the tank. Fekete also discloses a casing (e.g., combination of plastic cap 88 and plastic base 70) that is hermetically sealed together. Therefore, Fekete 's casing (e.g., combination of plastic cap 88 and plastic base 70) inherently is isolated from the liquid in the tank. Re to the further limitation of claim 8, as depicted in fig. 3, Fekete discloses a potentiometer (e.g., contact plate 118 with resilient grounded arms (120, 121, 122)).

Re to claim 2, Fekete discloses a sensing part that senses an angle of rotation of a magnet magnetically.

Re to claim 3, as depicted in fig. 9, Fekete discloses a non-contact coupling which couples a float and a sensor part through the casing (130) in non-contact way.

Re to claim 4, Fekete discloses a magnetic-detection type rotation-angle sensor

Re to claim 9, Fekete discloses in figs. 3 and 9 a float. As depicted in fig. 9, Fekete discloses a sensor part (130) that is screwed into a tank and therefore is in the

tank. Fekete also discloses a casing (e.g., combination of plastic cap 88 and plastic base 70) that is hermetically sealed together. Therefore, Fekete 's casing (e.g., combination of plastic cap 88 and plastic base 70) inherently is isolated from the liquid in the tank. Fekete discloses a sensing part that senses an angle of rotation of a magnet magnetically.

Re to claim 10, Fekete discloses in figs. 3 and 9 a float. As depicted in fig. 9, Fekete discloses a sensor part (130) that is screwed into a tank and therefore is in the tank. Fekete also discloses a casing (e.g., combination of plastic cap 88 and plastic base 70) that is hermetically sealed together. Therefore, Fekete 's casing (e.g., combination of plastic cap 88 and plastic base 70) inherently is isolated from the liquid in the tank. As depicted in fig. 9, Fekete discloses a non-contact coupling which couples a float and a sensor part through the casing (130) in non-contact way.

3. Claims 1-7, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kogure et al. (JP200135040A).

Re to claim 1, as depicted in figs. 1 and 2, Kogure et al. discloses a float (13) and a sensor part (e.g., level detector 14) having a casing in a tank. As depicted in figs. 3 and 9, the casing (e.g., casing holding part 2C) covers the sensing part (e.g., level detector 14) and therefore the casing (2C) inherently is isolated from the liquid.

Re to claim 2, as depicted in figs. 2- 4, and 8, Kogure et al. discloses that the sensing part (e.g., level detector 14) senses the angle of rotation of a magnet (17) in rotation to the displacement of a float (13).

Re to claim 3, as depicted in figs. 2 and 3 Kogure et al. discloses a non-contact coupling which couples a float (13) and a sensor part (e.g., level detector 14) through the casing (e.g., 2C) in non-contact way.

Re to claim 4, as depicted in fig. 3, Kogure et al. discloses a magnetic-detection type rotation-angle sensor (e.g. hall device 21).

Re to claims 5 and 7, as depicted in fig. 3, Kogure et al. discloses a magnetic-detection rotation-angle sensor (e.g. hall device 21) comprising a housing, yokes (18, 19), and a circuit board (e.g., passive circuit elements in flexible substrate 20) (see pars. 32 and 39).

Re to claim 6, as depicted in fig. 3, Kogure et al. discloses a hall element/device (21) disposed between the yokes (18, 19).

Re to claim 9, as depicted in figs. 1 and 2, Kogure et al. discloses a float (13) and sensor part (e.g., level detector 14) having a casing in a tank. As depicted in figs. 3 and 9, the casing (e.g., casing holding part 2C) covers the sensing part (e.g., level detector 14) and therefore the casing (2C) inherently is isolated from the liquid. As depicted in figs. 2- 4, and 8, Kogure et al. discloses that the sensing part (e.g., level detector 14) senses the angle of rotation of a magnet (17) in rotation to the displacement of a float (13).

Re to claim 10, as depicted in figs. 1 and 2, Kogure et al. discloses a float (13) and sensor part (e.g., level detector 14) having a casing in a tank. As depicted in figs. 3 and 9, the casing (e.g., casing holding part 2C) covers the sensing part (e.g., level detector 14) and therefore the casing (2C) inherently is isolated from the liquid. As depicted in figs. 2

and 3 Kogure et al. discloses a non-contact coupling which couples a float (13) and a sensor part (e.g., level detector 14) through the casing (e.g., 2C) in non-contact way.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 6:30 AM to 12:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

T.B.

October 29, 2004



Hezron S. Williams

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800